The Opal & Crystal range of Electric Radiators

the ultimate solution for central heating

INSTALLATION MANUAL & OPERATING INSTRUCTIONS

Models:

OPA500.360.445	CRY500360.445/D
OPA1000.415.445	CRY1000.415.445/D
OPA1500.565.445	CRY1500.565.445/D
OPA2000.695.445	CRY2000.695.445/D
OPA2400.915.445	CRY2400.915.445/D

Please read all instructions before using this appliance and ensure these are stored in a safe place for future reference.

Important Safety Instructions

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Young children should be supervised to ensure that they do not play with the appliance;
- **WARNING**: In order to avoid overheating, do not cover this appliance;
- The appliance must not be located immediately below a socket-outlet;
- To avoid burns, do not touch the hot surface of the appliance when it is in use.
- Do not run the power cord under carpets, rugs or runners and ensure it is away from a traffic area to avoid slips trips and falls.
- Connect the appliance to properly grounded power outlets only.
- Use the appliance only as described in this manual as any other use which is not covered in this manual may cause fire, electric shock or injury to persons.
- IPX4 rated bathroom radiators **must** be installed as per section 6 of this manual.
- If the supply cord is damaged it must be replaced by the manufacturer, authorised service agent, or similarly competent persons in order to avoid an electric shock hazard;
- Please do not place clothes or towels on the appliance as this will result in the radiator over heating.
- Always use the appliance in an upright position; make sure the appliance is on a dry and even surface.
- Do not insert or allow foreign objects to enter any ventilation or exhaust opening, as this may cause an electric shock, fire and/or damage to the appliance.
- Do not use the appliance for any other purpose than its intended use.
- Do not position the appliances in close proximately to curtains or other combustible materials, explosive objects, or objects which can be easily deformed or damaged
- Keep combustible material such as furniture, cushions, soft furnishings, paper, clothes, etc. at least 1.0m away from the appliance.
- Do not operate in areas where paints or flammable liquids are used or stored.
- The appliance is <u>not</u> suitable for outside use

WARNING - THIS APPLAINCE MUST BE EARTHED.

This appliance must be used on an AC supply only and the voltage marked on the appliance must correspond to the supply voltage. Before switching on, please read the safety warnings and operating instructions

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- nominal stress: 230V AC, 50 Hz
- protection class: I
- degree of protection Opal: IP21
- degree of protection Crystal: IP24 & IPX4
- room thermostat: 4°C till 40°C

Note: The **Opal** range of radiators are **<u>not</u>** suitable for bathrooms while the **Crystal** range of radiators **<u>are</u>** suitable for bathrooms - see **Section 6 'Bathroom Zones for Radiator installation'**

1. Instructions to use

Manual Thermostat

Operation
Connect the heating convector to the mains supply

Switching the appliance on
Switch on the appliance by setting the temperature selector dial to position “1“.

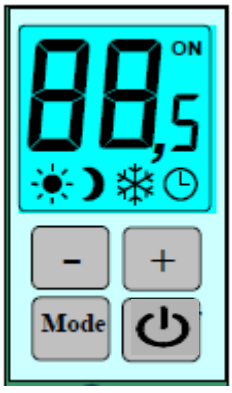
Switching the heating on
Once the appliance is switched on turn the temperature selector dial to the required temperature setting. The temperature range extends from 4°C to 40°C graduated into 10 steps. The thermostat switches off the heating as soon as the preset ambient temperature is reached, which will then be kept constant by cyclic heating. The high consistency of the thermostat provides a constantly comfortable temperature which ensures the most cost effective heating method.

Anti-freezing protection
When setting the temperature selector dial to position “1“ the thermostat automatically cuts in if the ambient temperature falls below 4°C.

Switching the appliance off
Switch off the appliance by setting the temperature selector dial to position “0“.

Digital Thermostat

Keyboard & Digital Display



The Keyboard consists of four buttons:

(+) Adjustment increase
(—) Adjustment decrease
Mode selection button
⏻ Power ‘on/off’ button

Mode button:

The Mode button has four stages of operation **‘Comfort’ ‘Economy’ ‘Frost Protection’** and **‘OFF’**:

> **Comfort Mode**: The sun icon is displayed and this is normally used for day time setting.

> **Economy Mode**: The moon icon is displayed and this is normally used for a night time setting.

> **Frost Protection Mode:** The frost icon is displayed and this is normally used for periods of absence from the house during winter months. This is a factory pre-set mode and is set to 7ºC

> **OFF:** The digital display will show two small horizontal bars in-line with each other denoting that the radiator is still switched on but that no other program mode is required.

Normal Operation:

Switch the radiator on by pressing the ⏻ icon and select either the **Comfort** or **Economy** Mode of operation. This is achieved by briefly pressing the Mode button until the desired icon is showing on the digital display. The digital display will also show the current temperature of the room. To check or set the desired room temperature briefly press the + or – button and the digital display will show the thermostat temperature setting. If you require the room thermostat temperature setting to be increased or decreased, briefly press the + or – button until the desired room thermostat temperature setting is showing. The digital display will flash approximately 4 times at 1 second intervals and then the digital display will stop flashing and display the current room temperature. If the current room temperature is lower than the room thermostat temperature setting you set as above, then the digital display will show **‘on’** in the upper right section of the display. This indicates that the radiator is calling for heat and after a few seconds you should be able to feel the heat coming out of the top of the radiator.

Note: The digital display will also show a clock icon periodically; however this function is not installed in this radiator and therefore should be ignored.

Keypad Locking:

To lock the keypad, simultaneously press the + or – buttons for 5 seconds. After 5 seconds the **'LO'** message will be displayed indicating the keypad is now locked. Once the keypad has been locked pressing on any button will display '**LO'** on the digital display. To unlock the keypad, simultaneously press the + or – buttons for 5 seconds. After 5 seconds the **'LO'** message should then disappear and the digital display will revert to a normal display.

Thermostat temperature Setting Range: (Set Point)

The set-point limit of the **Comfort Mode** is between 7ºC and 30ºC and for the **Economy Mode** will be 2ºC lower than the **Comfort Mode** set-points (e.g. For above settings will be between 5ºC and 28ºC)

2. Important notes

During operation the temperature at the front panel and at the hot-air outlet of the convector may rise above 85ºC. Do not place any objects on or beside the appliance, do not place anything between the appliance and the wall.

Ensure that the hot air radiator outlets are not covered by objects such as clothing or soft furnishings, etc; otherwise a risk of overheating of the radiator will take place.

Combustible objects such as wood, paper, textiles etc. as well as highly flammable substances such as wax, petrol, aerosols must not be placed near the appliance. Switch the appliance off when carrying out work where highly flammable vapours could emerge. (e.g. laying or sealing parquet floors.)

Caution!

Installation of radiators must only be carried by an authorized and competent person. Remove the protection foil from all panels prior to first use.

3. Maintenance

To clean the appliance, switch it off and gently rub it with a moist cloth using a mild detergent if necessary. Finally polish with a dry cloth. Do not use any abrasive or caustic detergents when cleaning the radiator.

4. Installation instructions

These installation instructions are an integral part of the appliance and must be kept in a safe place by the user. Please ensure these instructions are passed on to any subsequent user or owner of the appliance.

The Opal & Crystal range of electric radiators are intended for being fixed to walls or alternatively they can be mounted on feet – see section: '**Fixing Feet for Free Standing Installation'**

It should be noted that the Opal range of radiators are not suitable for installation in bathrooms while the Crystal range of radiators are suitable for installation in bathrooms. See Figure 6 for the allowable installation zones.

The radiator comes complete with connecting cable and 13 Amp plug. However it is recommended that, unless the radiator is intended for operation on fixed feet, the radiator cable should be directly connected to a 13A rated switched fused spur socket.

Fixing for Wall Mount installation

Fix the appliance in place as per Figure 4 ensuring the requirements in the Safety Instructions and Important Notes sections of this manual are complied with.

Fix the appliance to an upright wall that is resistant to a minimum temperature of 90°C.

Keep a distance of 250 mm to the floor. There must be a minimum space of 100 mm between the appliance and any other objects. Window sills, roof slopes, brackets etc. must be located at least 500 mm above the hot-air outlets of the appliance

When fixing the appliance to the wall observe the dimensions given in Fig. 4. Drill two holes of 7mm and fix the appropriate wall plugs. Screw in the two 4 x 25 mm screws so that a distance of 1 – 2 mm is kept between screw head and wall.

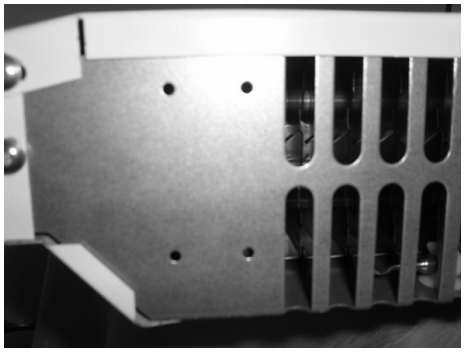
Install the appliance on the suspension brackets which are fixed to the back of the appliance. The unit should now be securely attached to the wall

Fixing Feet for Freestanding Installation
Fix the appliance in such way that any potentially combustible objects cannot catch fire.

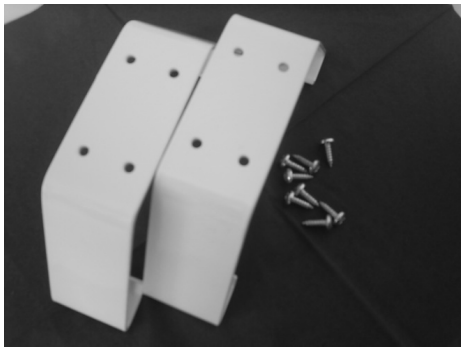
1. Place the appliance on a flat work surface.

2. Match the holes on the bottom of the unit (fig. 1) to the 4 holes on both feet (fig. 2).

3. Fasten the feet to the unit by fixing with the screws provided.



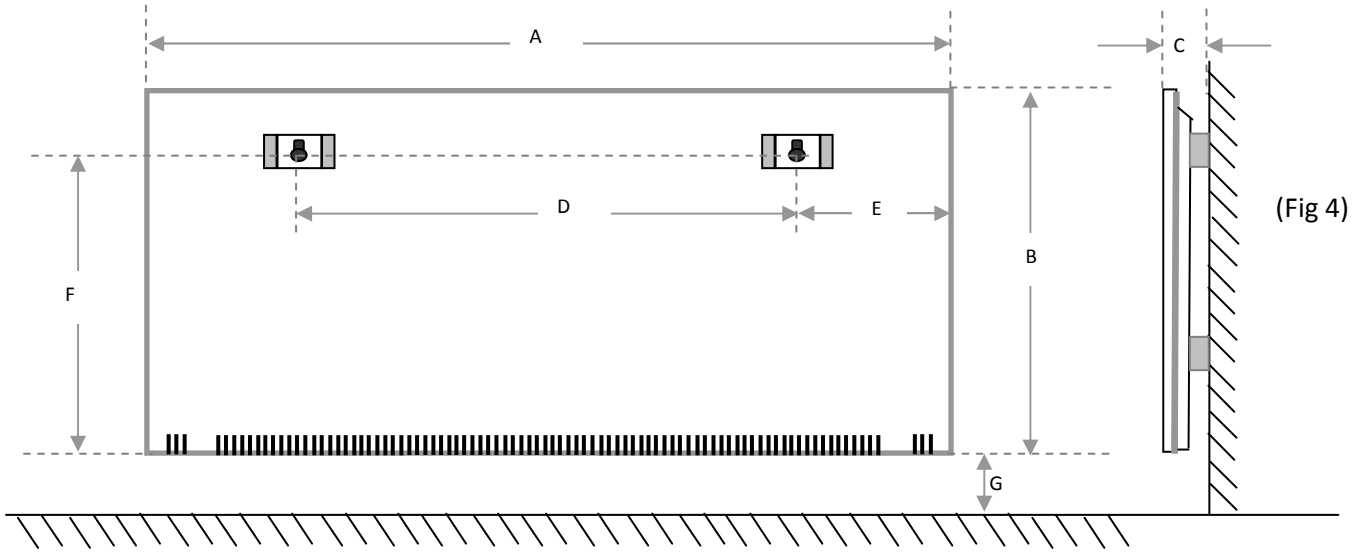
(Fig. 1)



(Fig. 2)

(Fig. 3)

RADIATOR - REAR PANEL FIXING DIMENSIONS



(Fig 4)

Radiator Model	Heating Capacity (Watts)	Width A (mm)	Height B (mm)	Depth C (mm)	Fixing Dim. D (mm)	Fixing Dim. E (mm)	Fixing Dim. F (mm)	Fixing Dim G (mm)	Weight (kgs)
OPA500.360.445	500	360	445	85	153	100	350	250	3.1
OPA1000.415.445	1000	415	445	85	220	100	350	250	3.6
OPA1500.565.445	1500	565	445	85	370	100	350	250	4.4
OPA2000.695.445	2000	695	445	85	500	100	350	250	5.2
OPA2400.915.445	2400	915	445	85	720	100	350	250	6
CRY500.360.445/D	500	360	445	85	153	100	350	250	3.7
CRY1000.415.445/D	1000	415	445	85	220	100	350	250	4.8
CRY1500.565.445/D	1500	565	445	85	370	100	350	250	6
CRY2000.695.445/D	2000	695	445	85	500	100	350	250	7
CRY2400.915.445/D	2400	915	445	85	720	100	350	250	8.4

Electrical installation

The appliance has been designed to be connected to 230 V (nominal) alternating current (AC); 50Hz supply

Note: The Opal range of radiators are not suitable for installation in bathrooms while the Crystal range of radiators are suitable for installation in bathrooms. See Figure 6, Section 6 below for the allowable installation zones for bathrooms.

All electrical installation work, in particular protective measures, must be carried out in compliance with the national regulations, statutory provisions and 'best industry practice' of the respective utilities provider.

The electrical installation may only be carried out in compliance with the installation instructions and by a competent suitably qualified electrical engineer.

The radiator comes complete with connecting cable and 13 Amp plug. However it is recommended that, unless the radiator is intended for operation on castors, the radiator cable should be directly connected a 13A rated switched fused spur socket

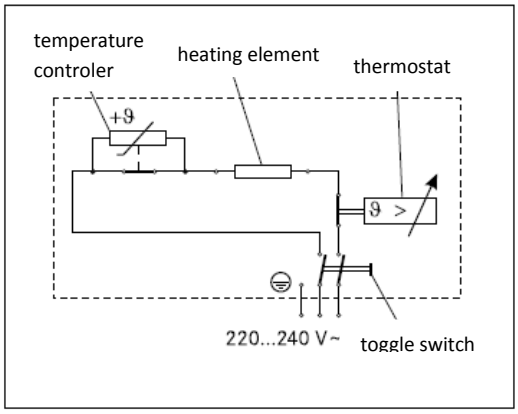
Where a switched isolation wall socket is used then a 3 mm separation on all poles is required.

The minimum distance between appliance and connector socket must be 10 cm. The connecting cable must not have contact with the appliance.

In situations where the connecting cable is damaged, it should only be replaced by authorized replacements as identified by the manufacturer!

All electrical installations must comply with BS7671 'Wiring Regulations'

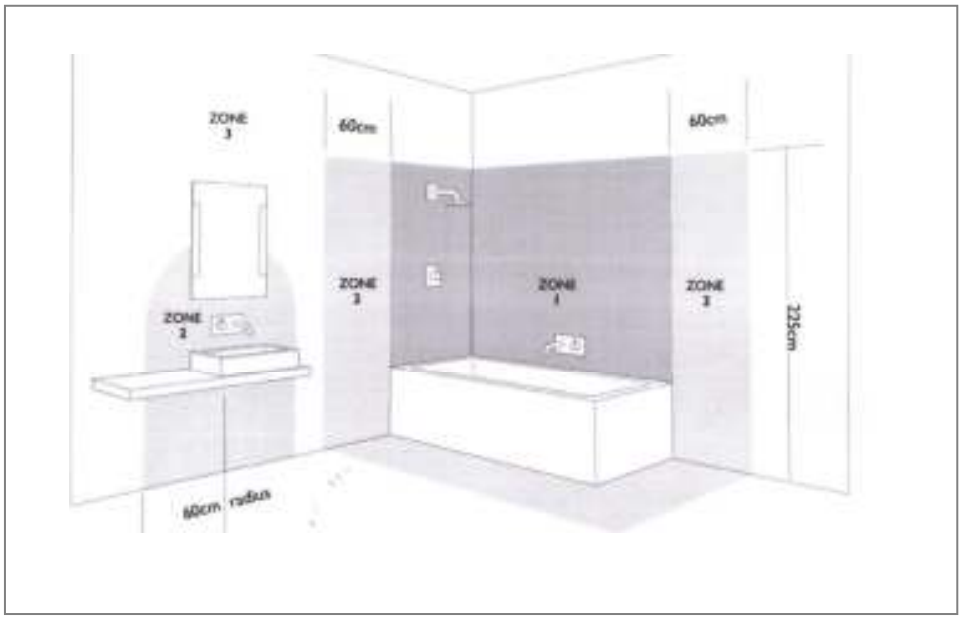
5. Diagram of connections



(Fig 5)

Technical one subject to change

6. Bathroom Zones for radiator installation



(Fig 6)

<u>Note:</u> IPX4 rated radiators are only allowed to be installed in Zone 2 or 3

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